

US EPA ARCHIVE DOCUMENT



R.E.D. FACTS

Tridecenyl Acetates

Pesticide Reregistration

All pesticides sold or distributed in the United States must be registered by EPA, based on scientific studies showing that they can be used without posing unreasonable risks to people or the environment. Because of advances in scientific knowledge, the law requires that pesticides which were first registered before November 1, 1984, be reregistered to ensure that they meet today's more stringent standards.

In evaluating pesticides for reregistration, EPA obtains and reviews a complete set of studies from pesticide producers, describing the human health and environmental effects of each pesticide. The Agency develops any mitigation measures or regulatory controls needed to effectively reduce each pesticide's risks. EPA then reregisters pesticides that can be used without posing unreasonable risks to human health or the environment.

When a pesticide is eligible for reregistration, EPA explains the basis for its decision in a Reregistration Eligibility Decision (RED) document. This fact sheet summarizes the information in the RED document for reregistration case 4116, tridecenyl acetates.

Use Profile

Tridecenyl acetates are sex attractant pheromones used in tomato fields to disrupt the mating behavior of tomato pinworms.

Formulations include the technical grade active ingredients (TGAI) and inert ingredients inside a solid polymeric matrix known as a dispenser; the TGAI encapsulated in beads; and the TGAI embedded into polymeric fibers.

Tridecenyl acetate products are applied by spraying the beads or fibers, or by distributing the solid matrix dispensers.

There are no use practice limitations.

Regulatory History

Tridecenyl acetates were first registered as a pesticide in the U.S. in 1982. Currently, eleven tridecenyl acetate products are registered with four companies. These products employ the sex attractant pheromone of the tomato pinworm and are applied to fields of tomatoes to disrupt the mating behavior.

Human Health Assessment

Toxicity

In studies using laboratory animals, tridecenyl acetates generally have been shown to be of low acute toxicity. There is potential for dermal, eye and inhalation exposures to the pesticide for pesticide handlers, but due to low application rates, even lower exposure subsequent to application, and to the fact that the TGAI is embedded in a polymeric matrix, the potential is considered minimal. Tridecenyl acetates have been placed in Toxicity Category IV (the lowest of four categories) for this effect.

[NOTE: For acute oral, dietary, mammalian/avian/aquatic toxicity:

Category I = very highly or highly toxic

Category II = moderately toxic

Category III = slightly toxic

Category IV = practically non-toxic]

Dietary Exposure

This compound is not applied directly to the tomato plants nor is it taken up or metabolized by tomato plants, but rather it is incorporated into dispensers or as a microencapsulated material. Therefore, dietary exposure to this compound is expected to be minimal. The Agency has established an exemption from the requirements of a tolerance for this group of active pesticidal ingredients (lepidopteran pheromones) when used at a rate not to exceed 150 g. a.i./acre/year.

Occupational and Residential Exposure

Based on current use patterns, handlers (mixers, loaders, and applicators) may be exposed to tridecenyl acetates during normal use of bead, fiber and dispenser formulations. However the Agency believes that the risk from this exposure is minimal.

Human Risk Assessment

Tridecenyl acetates generally are of low acute toxicity. Food crop use is limited to tomatoes. Dietary exposure to tridecenyl acetate residues in foods is extremely low.

Environmental Assessment

Environmental Fate

Environmental fate Tier II studies for biochemicals are not imposed unless adverse effects are observed in Tier I Environmental Expression testing with wildlife, fish and aquatic invertebrates. There are no outstanding environmental effects data requirements for the tridecenyl

acetates. Sufficient data have been provided for an environmental fate and effects assessment. Therefore the Agency will not impose any environmental fate requirements for reregistration of the currently registered products containing tridecenyl acetates.

Ecological Effects

All of the ecological effects data requirements for tridecenyl acetates have been adequately fulfilled. A review of all available ecological toxicity data indicate that tridecenyl acetates are not likely to cause adverse effects in non-target avian, fish and aquatic invertebrate species.

Ecological Effects Risk Assessment

Ecological risk is considered minimal and therefore there are no risk mitigation measures required.

Additional Data Required

EPA is not requiring additional generic studies for tridecenyl acetates at this time but will require revised Confidential Statements of Formula (CSFs), and revised labeling for reregistration.

Product Labeling Changes Required

Labeling Requirements for Manufacturing-Use Products

There are currently three manufacturing-use products registered. These are the 3M Company's MEC Tomato Pinworm Pheromone Concentrate (10350-34), Bedoukian's TPW Technical Pheromone (52991-3) and Consep's Checkmate TPW Technical Pheromone (56336-7). To be in compliance with FIFRA, manufacturing use product labeling must comply with all current EPA regulations, PR Notices and applicable policies. The MP labeling must bear the following statement under Directions for Use:

"Only for formulation into a pheromone for the following use: as an attractant in a mating disrupter."

An MP registrant may, at his/her discretion, add one of the following statements to an MP label under "Directions for Use" to permit the reformulation of the product for a specific use or all additional uses supported by a formulator or user group:

- (a) "This product may be used to formulate products for specific use(s) not listed on the MP label if the formulator, user group, or grower has complied with U.S. EPA submission requirements regarding support of such use(s)."

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- (b) "This product may be used to formulate products for any additional use(s) not listed on the MP label if the formulator, user group, or grower has complied with U.S. EPA submission requirements regarding support of such use(s)."

End-Use Products:

All tridecenyl acetate end-use products must comply with EPA's current pesticide product labeling requirements. For a comprehensive list of labeling requirements, please see the tridecenyl acetates RED document.

Worker Protection Standard:

The labeling of all microencapsulated end-use products containing tridecenyl acetate must comply with EPA's current regulations and requirements as specified in 40 CFR 156.10 and other applicable notices. According to Pesticide Regulation (PR) Notice 93-7, "Labeling Revisions Required by the Worker Protection Standard (WPS)", WPS does not apply to attractants used in insect dispensers. However the microencapsulated products are within the scope of the WPS and must bear all of the labeling requirements stipulated in PR Notices 93-7 and 93-11.

Environmental Hazard:

The following Environmental Hazard Statement must appear on the labeling of all products containing tridecenyl acetates:

"Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the high-water mark. Do not contaminate water when disposing of equipment wash water or rinsate."

**Regulatory
Conclusion**

The use of currently registered products containing tridecenyl acetates in accordance with approved labeling will not pose unreasonable risks or adverse effects to humans or the environment. Therefore, all uses of these products are eligible for reregistration.

Tridecenyl acetates products will be reregistered once the required revised Confidential Statements of Formula, and revised product labeling are received and accepted by EPA.

For More Information

EPA is requesting public comments on the Reregistration Eligibility Decision (RED) document for tridecenyl acetates during a 60-day time period, as announced in a Notice of Availability published in the Federal Register. To obtain a copy of the RED document or to submit written comments, please contact the Pesticide Docket, Public Response and Program Resources Branch, Field Operations Division (7506C), Office of Pesticide Programs (OPP), US EPA, Washington, DC 20460, telephone 703-305-5805.

Electronic copies of the RED and this fact sheet can be downloaded from the Pesticide Special Review and Reregistration Information System at 703-308-7224. They also are available on the Internet on EPA's gopher server, *GOPHER.EPA.GOV*, or using ftp on *FTP.EPA.GOV*, or using WWW (World Wide Web) on *WWW.EPA.GOV*.

Printed copies of the RED and fact sheet can be obtained from EPA's National Center for Environmental Publications and Information (EPA/NCEPI), PO Box 42419, Cincinnati, OH 45242-0419, telephone 513-489-8190, fax 513-489-8695.

Following the comment period, the tridecenyl acetates RED document also will be available from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, telephone 703-487-4650.

For more information about EPA's pesticide reregistration program, the tridecenyl acetates RED, or reregistration of individual products containing tridecenyl acetates, please contact the Special Review and Reregistration Division (7508W), OPP, US EPA, Washington, DC 20460, telephone 703-308-8000.

For information about the health effects of pesticides, or for assistance in recognizing and managing pesticide poisoning symptoms, please contact the National Pesticides Telecommunications Network (NPTN). Call toll-free 1-800-858-7378, between 9:30 am and 7:30 pm Eastern Standard Time, Monday through Friday.